A SKETCH OF THE MILLS OF THE AMERICAN WOOLEN CO.

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BOSTON, MASS.
AMERICAN WOOLEN COMPANY
MDCCCCI

WILLISTON H. COLLINS & CO.
PRINTERS
NEW BEDFORD, MASS.

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AMERICAN WOOLEN COMPANY

The American Woolen Company was incorporated under the laws of New Jersey on March 29, 1899, with the following officers: President, Mr. Frederick Ayer, of Lowell, Mass.; Vice-President, Mr. Joseph G. Ray, of Franklin, Mass.; Treasurer, Mr. William M. Wood, of Andover, Mass.; Assistant Treasurer, Mr. Edward B. Chapin, of Andover, Mass.; Secretary, Mr. Joseph T. Shaw, of Boston.

The Executive Committee comprised Mr. Wood, who was Treasurer of the Washington Mills; Mr. James Phillips, Jr., who was the owner of the Fitchburg, Beoli, and Valley Mills; and Mr. Charles Fletcher, of the National and Providence Worsted Mills, the Fulton and Saranac Mills.

These seven mills, with the Riverside Worsted Mills of Providence, formed the nucleus of the new corporation. Afterward there were purchased and assimilated by the company the following plants: The Sawyer Mills, of Dover, N. H.; the Assabet Mills, of Maynard, Mass.; the Faulkner Mills and the Collins Mills, of Lowell, Mass.; the Vassalboro Woolen Mills, of North Vassalboro, Me.; the Plymouth Woolen Mills, of Plymouth, Mass.; the Anderson Mills, of Skowhegan, Me.; the Kennebec Mills, of Fairfield, Me.; the Manton Mills, of Manton, R.I.; the Inman Mills, of Harrisville, and the Sheffield Worsted Mills, of Pascoag, R.I.; the Chase Mills, of Webster, Mass.; the Brown Mills, of Dover, Me.; Ray's Woolen Mills, of Franklin, Mass.; the Weybosset Mills, of Providence, R.I.; the Baltic Mills, of Enfield, N.H.; the Milner Mills, of Moosup, Conn.; and the Riverside and Mascoma Mills, of Lebanon, N.H.

The various plants continued their current season's business through their respective commission houses, but with the opening of the goods for the next season in August, the American Woolen Company's management assumed full control of the manufacture and the disposition of the fabrics of all the various mills.

The twenty-six manufacturing plants comprising the company employ 20,000 hands, and produce 37,500,000 yards of cloth per year. Their aggregate equipment comprises 362 woolen cards, 179 worsted cards, 166 combs, 147,264 woolen and 151,716 worsted spindles, and 5,410 looms.

The mills have an aggregate floor space of 5,480,065 square feet, or one hundred and twenty five and one-half acres. The land owned by the company amounts to six hundred and nine and one-half acres, exclusive of hundreds of acres covered by flowage rights. All of the manufacturing property of the American Woolen Company, including its plants, stock (raw, wrought, and in process) and finished goods, is fully covered by insurance.

The company is capitalized at $49,501,100, which comprises $20,000,000 of preferred stock and $29,501,100 common stock outstanding. The preferred stock is subject to a seven per cent cumulative dividend, payable quarterly.

On the expiration of his term, Mr. Ray was succeeded by Mr. Frank Jones of Portsmouth, N. H., as the vice-president of the company. Mr. Fletcher has been succeeded by Mr. Frederick Ayer on the executive committee, and by Mr. Samuel P. Colt of Providence, R. I., on the directorate, which now comprises Frederick Ayer, William M. Wood, James Phillips, Jr., Frank Jones, Edwin C. Swift of Boston, Edward P. Chapin of Andover, Francis W. Kittredge of Boston, J. Clifford Woodhull of Summit, N. J., Charles R. Flint of New York, and Samuel P. Colt of Providence, R. I.

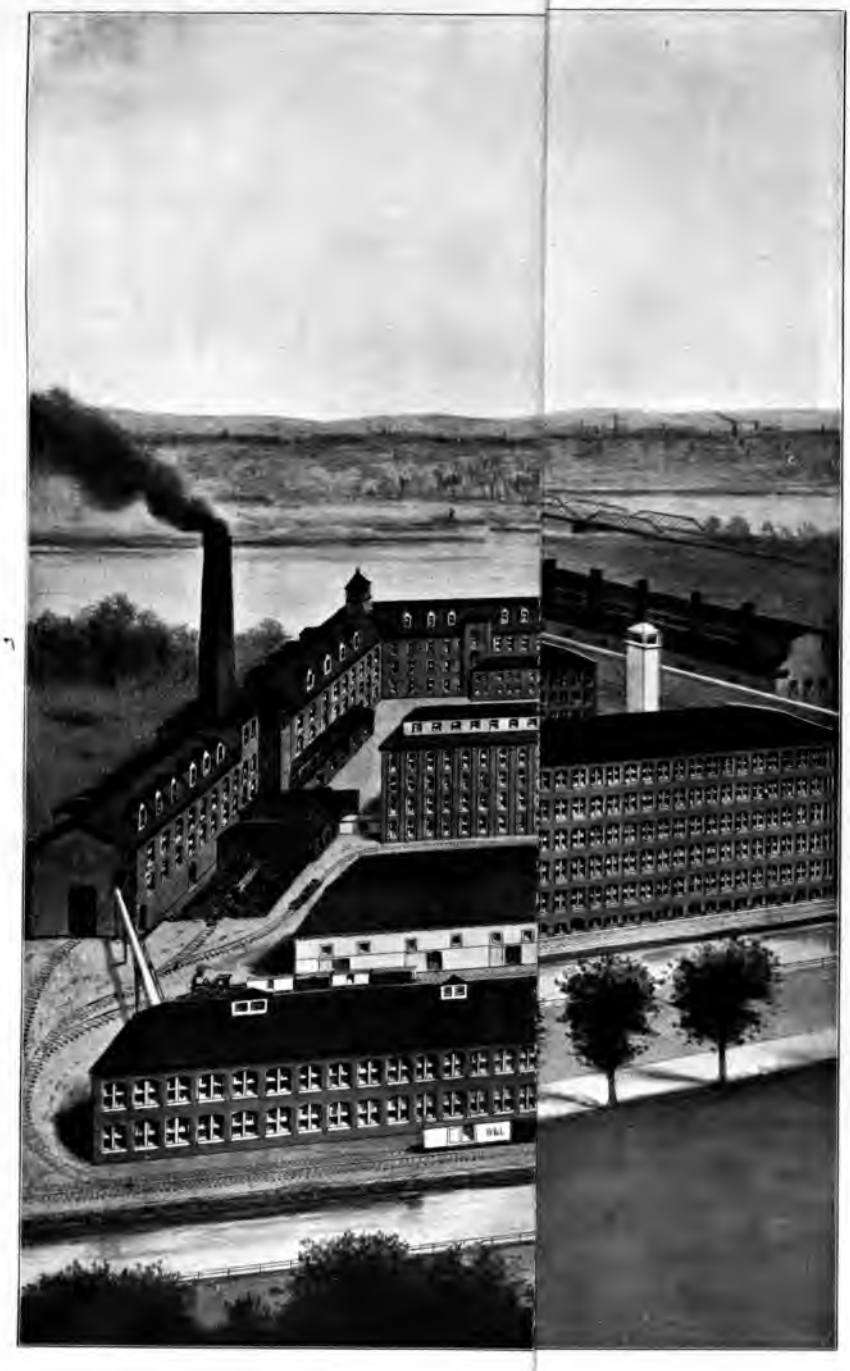
The company's selling agency is located at 74 and 76 Worth street, New York City, having also office and storage space at 19 and 21 Thomas street and the building comprising Nos. 143 to 147 Franklin street. It has leased, however, for its sales office, four floors of the building in course of construction at Leonard and Church streets, which will afford more commodious quarters. The company has, in addition to its main selling agency, branch offices at Broome and Mercer streets, in New York, and also in the other larger cities in the country.

WASHINGTON MILLS

LAWRENCE, MASS.

WASHINGTON MILLS

LAWRENCE, MASS.



WASHINGTON MILLS

LAWRENCE, MASS.

The Washington Mills, located at Lawrence, Mass., on the north banks of the Merrimac, were built under the name of "Bay State Mills," the charter being granted by the Legislature of 1845, with an authorized capital of $1,500,000. The construction was begun in April of that year under the supervision of Captain Phineas Stevens, of Nashua, N. H., and three years later, in February, 1848, the first wheel was set in motion and the production of several varieties of goods was begun, among them being the "Bay State Shawls," a woolen fabric of moderate cost, of good texture and pattern, which attained a national reputation—as many as 315,000 of them being made in 1850.

The first treasurer and general manager of the company was Samuel Lawrence, one of the family for whom the city was named. The first resident agent was M. D. Ross, and he was succeeded, in the order named, by Samuel Webber, Capt. Oliver H. Perry, and Capt. G. V. Fox, the last named holding the office of Assistant Secretary of the Navy during the Civil War.

In the general depression of trade in 1875, the original company failed, and for two years the silent mills and idle machinery stood as a monument to the "hard times." Then the creditors awoke to the fact that the only way to get anything out of the plant was to put more in, and under the name of "Washington Mills" they obtained a charter from the Legislature of 1878, and with a capital of $1,650,000 started the manufacture of several new varieties of worsted goods and worsted coatings made

of combed wool, introduced into America by Hon. E. R. Mudge, which up to the time of this venture had been imported. In addition to these fabrics they made twilled blue flannel coatings and opera flannels. Joseph S. Fay, Joshua Stetson and Henry F. Coe filled successively the office of treasurer of the corporation.

Under this management the company, employing 2,500 hands, became the second in size in Lawrence, the plant consisting of one cotton mill, one worsted mill and five mills devoted to woolen manufacture. The machinery was driven by seven water-wheels aggregating 1025 horse-power and two engines of 1000 horse-power each.

The resident agents were Gustavus V. Fox, ex-agent of Bay State Mills, Edward D. Thayer, William H. Salisbury, Parker C. Kirk, John H. Needham and G. M. Stoddard. Like its predecessor, this company failed and went into liquidation. The property was purchased by Frederick Ayer, of Lowell, Mass., who formed the corporation known as the "Washington Mills Company," with a capital of $1,450,000, which was later increased to $2,000,000, and still later to $2,500,000. The old mills at the westerly half of the property were torn down, and on the site were built modern buildings forming the letter "E," known as Mills Nos. 1, 2, 3, 4. The dimensions of these mills follow:

No. 1 Mill, parallel with canal, 407 by 100 feet, five stories and basement; No. 2 Mill, on bank of the river, 397 by 100 feet, five stories and basement; No. 3 Mill, connecting No. 1 and No. 2 on easterly ends, 130 by 63 feet, four stories and basement; No. 4 Mill, forming middle branch of the E, 407 by 61 feet, two stories and basement when built, but in 1894 it was raised two stories.

Early in 1887 these mills were finished and occupied. Besides Mills Nos. 1, 2, 3 and 4, and 5, 8 and 9, mentioned elsewhere, there are:

No. 6, 452 by 40 feet, three stories and an attic; No. 6, "L," five floors, 240 by 40 feet; No. 10 Storehouse, 168 by 100 feet, one floor; No. 10, Annex, 172 by 52 feet, one floor; No. 11 Storehouse has been torn down and a wool storehouse, 165 feet square, is being built on the site; Storehouse 100 by 58 feet, with three floors for the storage of worsted tops; Dye-House—between Nos. 2 and 4 Mills—one floor 367 by 61 feet; No. 4 Annex, one floor, 391 by 46 feet; two brick blocks of boarding houses and tenements, 250 by 36 feet, three stories and attic.

The first treasurer of the Washington Mills Company was Mr. George Ripley, of Andover, and he was succeeded by Mr. Frederick Ayer and by Mr. William M. Wood, who became both treasurer and general manager.

The development of this plant in the past few years has been very rapid. In 1893 the Mills were producing 58,306 pounds of worsted yarn, 32,260 pounds of woolen yarn and 65,822 yards of cloth per week, which in an average week of the following year amounted to 69,794 pounds of worsted yarn, 40,382 pounds of woolen yarn and 100,272 yards of cloth.

In 1895 the production of worsted yarn was increased to 108,193 pounds in an average week; and in 1898, the year before the assimilation of this company by the new corporation, an average week's production of worsted yarn amounted to 216,789 pounds, of woolen yarn 57,472 pounds, and of cloth woven 219,347 yards.

In this period of six years the number of operatives had increased from 2,818 to 5,041.

Mr. Thomas Sampson was the first resident agent of the Washington Mills Company, holding the position until May 13, 1889, when he was succeeded by Mr. Francis H. Jealous who gave place to Mr. E. P. Chapin on the first of July, 1891. Mr.

Chapin occupied the position until he was called to be the general agent of the mills of the American Woolen Company, being succeeded at the Washington Mills by Mr. James Ingram in May, 1899.

At 9 in the evening of May 17, 1887, the old No. 1 Mill, nine stories high, caught fire and was burned to the ground with a loss of $250,000. On December 7, 1895, the Shoddy Mill was gutted by fire; and the third fire incident was another costly one. At 11:43 p.m., October 26, 1896, a fire started in the dry room of the dye-house—the most dangerous place for a fire in the whole plant, being hot and dry and an exceedingly difficult place to combat a conflagration, located as it was in the center of the system. Great damage was done in Nos. 1, 2, 3, 4, and dye-house annex, the loss amounting to $200,000. Work to repair the damage was immediately begun, the mills continuing to run in the mean time. The cleaning up was done in two or three days, the dye-house and wet finishing running and turning out their work with no roof over them.

The mechanical department of the plant is made up of a carpenter's shop, machine shop, belt shop, blacksmith's shop, tinsmith's shop and electric lighting plant. Besides these there is a large pin shop for repairing comb circles and fallers and a brush shop where all comb and finishing brushes are made. The mill store carries a stock of supplies amounting to about $30,000, from which each overseer orders and is charged with what his department uses.

The new mills not having capacity enough to keep pace with the ever-growing demand for the goods of the company, in 1895 old Nos. 4 and 5 were raised one and two stories respectively, and connected, making the new No. 5. In this same year, Storehouse No. 8—a wooden building one story in front and two in rear—

was raised three stories, and the width increased 20 feet, making a building 200 by 93½ feet.

Still further demands for room resulted in the erection of No. 9 Mill, finished about June 1, 1897, its dimensions being 194 by 49 feet, four stories and a basement.

The motive power has increased to 7,422 horse-power, of which 3,087 is furnished by water-wheels and the balance by two large and two small engines.

The floor acreage has increased in the period covered above from about seventeen to twenty-nine and one-third acres. The equipment is now considered by experts to be of the best, and is partially made up as follows:

Eighty-two sets worsted cards; 77 worsted combs; 41 sets of English drawing; 1 set of French drawing; 67,248 English spinning spindles; 7,080 French spindles and 1,370 men's-wear looms.

Appended is a table giving an idea of the gradual and steady growth of this corporation:

Year.	Worsted Yarn Produced in One Week.	Yards Cloth Woven One Week.	Lbs. Woolen Yarn Produced One Week.	Hands Employed.
1889	48,204	40,763	32,092	2154
1890	50,233	50,362	33,853	2416
1891	39,186	44,174	28,499	1886
1892	51,084	48,117	36,557	2418
1893	58,306	65,822	32,260	2818
1894	69,794	100,271	40,382	3377
1895	108,193	113,625	43,131	3965
1896	147,902	157,755	44,767	4337
1897	182,933	171,811	54,048	4577
1898	216,789	219,347	57,472	5041
1899	247,577	233,835	53,099	5385
1900	269,166	248,553	—— *	5900

*Woolen machinery removed.

The woolen machinery was removed to the Beaver Brook Mills at Collinsville, Mass., in the latter part of 1899, and is being replaced by worsted machinery.

These mills have produced all kinds of dress goods, men's wear, coatings, etc., but are now confined wholly to clays, serges, mixtures, cheviots and plain and fancy piece dyes.

Some idea of the magnitude of this, the largest worsted plant in the world, can be gathered from the following facts:

The coal consumed in 1899 was 33,610 tons, or over 100 tons for each working day, and this only furnished a little over four-sevenths of the motive power.

The consumption of wool has run up as high as 579,000 pounds in one week. During the year just past these mills consumed the total yearly clip of about 4,000,000 sheep, reckoning six and a half pounds to each animal. They produced 11,985,000 yards of worsted cloth, double width. This would measure 6,809 miles of 54-inch cloth, or 13,618 miles of single width. If every one of the 3,600,000 human beings in Greater New York were men grown, the annual production of these mills would make them all a suit with about 88,000 yards left over.

The production was at first sold by C. A. Auffmordt & Co., Catlin & Co., and by the company's own selling house under the management of T. G. Todd. Mr. Todd was succeeded by Mr. D. H. Currie and he by Mr. S. J. Weaver. Soon after Mr. Wood became treasurer the company assumed the entire sale of its own production.

Upon the resignation of Mr. S. J. Weaver, Mr. J. Clifford Woodhull was made selling agent, and is now in charge of the American Woolen Company's entire selling department.

NATIONAL & PROVIDENCE WORSTED MILLS

PROVIDENCE, R. I.

NATIONAL AND PROVIDENCE WORSTED MILLS

AND THE

OLD SARANAC MILLS

PROVIDENCE, R. I.

NATIONAL & PROVIDENCE WORSTED MILLS

PROVIDENCE, R. I.

The National & Providence Worsted Mills were established by Charles Fletcher in 1876 under the name of the Providence Worsted Mills and were incorporated in 1883 under the same name under the laws of the State of Rhode Island. The original industry of this plant commenced with yarn spinning in an old stone mill which, until burned several years ago, formed the nucleus about which has grown up the largest individual fancy worsted mill in the country, employing 2,300 hands and operating 439 fancy looms, with a complement of spinning and all other necessary machinery to make the plant complete in itself.

The company continued making yarns only until 1886, when a weaving department was added, which was incorporated in that year under the laws of the State of Rhode Island as the National Worsted Mills. These corporations pursued their business separately under their own charters until 1893, when both were merged into one concern. They then became known as the National & Providence Worsted Mills, having been chartered under the laws of the State of Rhode Island, with a capital stock of two million dollars.

Beginning with the old stone mill in 1876, additions and alterations were made from year to year, new machinery being added as the various buildings were constructed to receive it, until at the present time the plant consists of seven mills fully equipped for the production of worsted yarn and goods. All of the mill build-

ings are constructed of brick and are modern in their design and equipment. Their dimensions are as follows:

No. 1 Mill is a four-story and basement building, 275 by 58 feet; No. 2 Mill, also four stories and basement, 263 by 57 feet, with "L" four stories, 24 by 20 feet; No. 3 Mill is 198 by 63 feet, with an "L" 100 by 65 feet, four stories in height; No. 4 Mill, four stories, 284 by 46 feet; No. 5 Mill, two stories, 144 by 62 and 113 by 30 feet; No. 6 Mill is a four-story structure, 280 by 100 feet, with a three-story "L" 120 by 80 feet; No. 7 Mill is a four-story structure, 120 by 56 feet.

Besides these buildings there are several others, including machine-shop building and two dye-houses, also a well-arranged office building. In addition there are three large, substantial buildings, all built of brick, which are used for the storage of wool and materials contained in the manufacture of worsted yarns and worsted goods. Each individual mill is independent, so far as power and machinery are concerned, a shutting down of one not affecting the others.

For lighting this immense establishment electricity is employed, both the arc and incandescent systems being used.

In the construction of the mills great care has been taken to provide the most advanced sanitary conditions, ventilation, and convenience for the operatives.

The power necessary for driving the machinery is derived from a steam plant aggregating 2,800 horse-power. There is also a small water-power connected, capable of producing 60 horse-power.

The mechanical equipment of the plant embraces the most expensive machinery of both French and domestic manufacture. This comprises 30 worsted and 21 woolen cards, 32 combs, 9,900 French and 12,828 English worsted spindles, 10,040 woolen spindles and 539 looms. It embraces all the machinery necessary for handling wool as it is shorn from the sheep to the finished product.

SARANAC MILLS

BLACKSTONE, MASS.

SARANAC MILLS

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SARANAC MILLS

BLACKSTONE, MASS.

These mills were founded by Welcome & Darius D. Farnum in 1840 and were sold to Bailey Evans, Caleb Seagrave & Co. in 1850. They were burned down in 1864, and rebuilt in 1865, running until the fall of 1893 on the manufacture of high-grade cassimeres, kerseys and beavers. After lying idle for five years the plant was purchased in 1898 by Mr. Charles Fletcher who remodeled the interior of the mill, threw out all the old machinery and equipped it with new of the latest make.

The main mill is 350 feet long and 50 feet wide. It has four stories and a basement. It has three water-wheels which develop 366 horse-power, and a 250 horse-power engine. Adjoining the main mill are the dye-house, boiler and engine room, drying-rooms, and wool storehouse. The main mill contains eight sets of Davis & Furber 48-inch cards, 2,772 spindles and 118 looms.

The Annex is 192 feet long and 37 feet wide. It contains 82 looms, making a total of 200 for the whole plant, of the Crompton & Knowles latest pattern.

The mills are fully equipped with an electric light plant of the enclosed arc system, operated by four Westinghouse dynamos which have a capacity of 300 lights, giving 1,200 candle-power.

The mills were started in full operation in 1899 under the management of Mr. Joseph E. Fletcher, eldest son of Mr. Charles Fletcher, formerly treasurer and manager of the Saranac

Mills, Providence. The Saranac Mills are now a part of the property of the American Woolen Company, Mr. Fletcher continuing as their resident agent until succeeded by Mr. A. A. Langewald.

The mills employ 550 hands and produce annually 1,250,000 yards of high-grade fancy worsted cloth.

FULTON MILLS

FULTON, N. Y.

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FULTON MILLS

FULTON, N. Y.

No. 6 Storehouse is 150 by 60 feet, three floors, 27,000 square feet, and is used exclusively for wool, yarn, and cloth storage.

The Dining Hall has two floors, having 9,840 square feet, and is also used for storage.

The Office Building, three floors, with basement and sub-basement, 100 by 48 feet, 24,000 square feet. The basement and sub-basement are used for storage.

The Finishing Department, alongside No. 2 and No. 3 Mills, has two floors, 113 by 33, and 111 by 22 feet. Total floor space, 14,542 square feet.

The Wool-Room Building has three floors, 115 by 30 feet; 10,350 square feet.

The Machine-Shop Building of three floors is 45 by 32 feet; total, 4,320 square feet. First floor, blacksmith-shop and iron storage; second floor, machine-shop; third floor, carpenter-shop, tinsmith and roller covering.

The Wool-Washing Building has one floor, 150 by 38 feet, and annex 25 by 25 feet; total floor space, 6,325 square feet.

The Dye-House Buildings have a total floor space of 8,413 square feet.

Wheel-House No. 2 has two floors, 97 by 44 feet, and a floor space, 9,536 square feet.

There is one 500-volt generator and one 150-light incandescent machine in the No. 2 Mill Building. Noils and waste are sorted and packed on the second floor of this building.

FITCHBURG MILLS

FITCHBURG, MASS.

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FITCHBURG, MASS.

The Fitchburg Mills were erected in 1854 by Joseph M. Mansur, who operated the plant for the manufacture of bunting. The original mill building was 150 by 47 feet, four stories in height.

In 1880 the Fitchburg Worsted Company was incorporated, with Mr. James Phillips, Jr., president and Mr. George N. Proctor treasurer. This company leased the mill buildings from the Blackburn estate, which had come into control of the property, and in very short time purchased the mills outright. The company was very successful from the beginning and early began to increase the capacity of the mill.

The first addition was 110 by 47 feet, four stories in height, being a continuance of the main mill building. In addition to that there is the office and boiler-room, 60 by 40 feet. The second addition was 114 by 36 feet, of two stories, and the third addition of the same dimensions.

The equipment consists of 188 looms with their complement of finishing machinery. Their production amounts annually to 800,000 yards of very fine worsted goods, including fine fancy worsted coatings and suitings.

The mill weaves and finishes cloth only, securing all the yarn from other mills of the company.

BEOLI MILLS

FITCHBURG, MASS.

BEOLI MILLS

FITCHBURG, MASS.

BEOLI MILLS

FITCHBURG, MASS.

This plant was constructed in 1847 by Laban Bullock for wood-working purposes, and in 1854 was converted into a woolen mill by Messrs. Gifford & Kennedy. No change was made in the plant until purchased by Messrs. Rockwell & James Phillips, Jr., in 1872.

The original plant contained only sixteen looms and two sets of cards, but the new firm immediately began to increase the capacity of the plant. Mr. Rockwell retired in a few years, leaving the business to be conducted by Mr. Phillips, who continued the manufacture of fine woolen and worsted cloths for men's wear until the mill, with the other manufacturing properties of Mr. Phillips, was assimilated into the American Woolen Company in April, 1899.

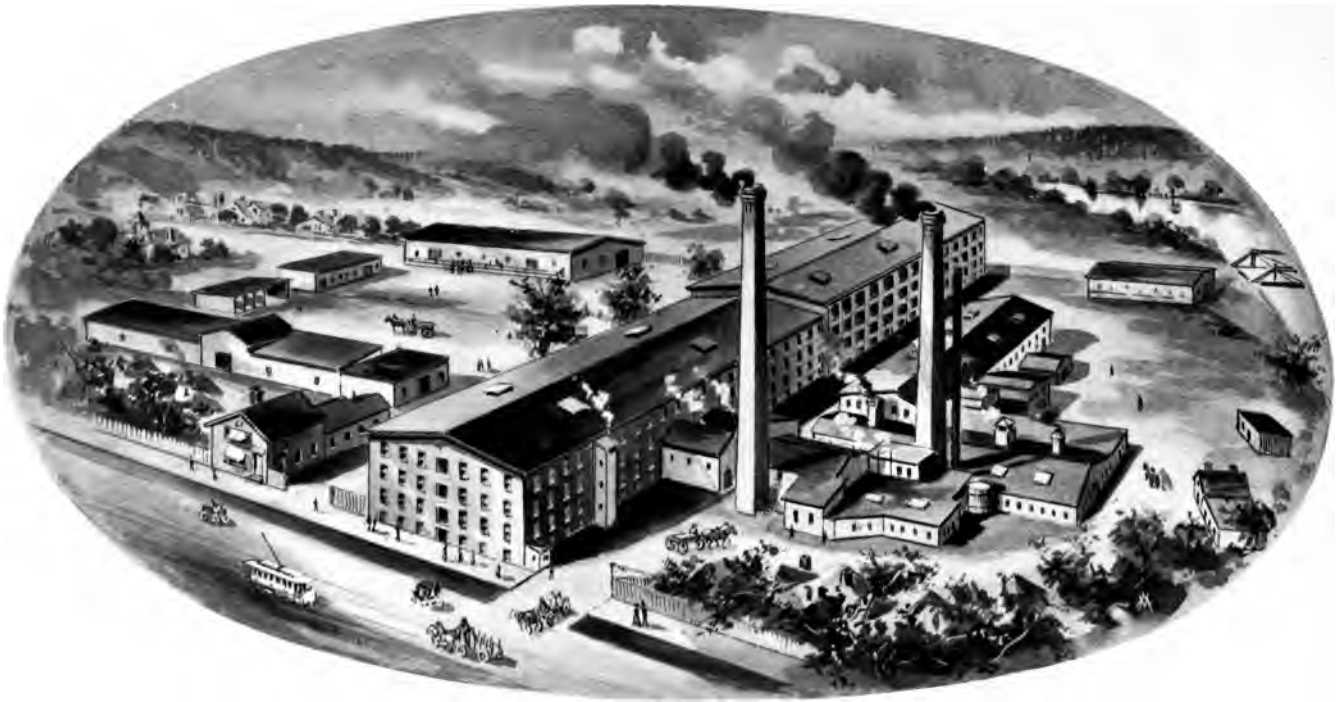
The original mill was 120 by 45 feet; the main mill constructed later is 300 by 60 feet, and is surrounded by the additions of the following dimensions, respectively: 120 by 30 feet, 170 by 60 feet, 150 by 30 feet, and the dye-house, 125 by 45 feet.

The equipment of the mill comprises 10 sets of woolen cards, 3,504 woolen spindles and 240 looms, with a full complement of finishing and other machinery.

The plant employs about 600 hands, and produces upwards of 100,000 yards of cloth monthly.

VALLEY MILLS

PROVIDENCE, R. I.



VALLEY MILLS

PROVIDENCE, R. I.

VALLEY MILLS

PROVIDENCE, R. I.

The Valley Worsted Mills, founded in 1842 by a Mr. Giles, had the distinction of being the first worsted mill in this country. The original plant was primitive in many ways, its machinery being operated by power derived from a windlass turned by oxen.

In 1858 the first company was formed to operate the plant. This company comprised W. J. Cross and J. Carpenter, who began the manufacture of knit goods and cardigan jackets. Under their management the plant was equipped with new machinery and the facilities for conducting their business were considerably improved.

In February, 1866, however, the plant was totally destroyed by fire, but was promptly rebuilt, and in November of the same year was again in operation on the manufacture of worsted braids. At this time the mill had 1,000 braid machines in active operation.

In 1872 the company operating the mill was incorporated under the name of the Valley Worsted Mills, with a capital of $450,000. The officials of this company were: president, J. Carpenter; treasurer, W. J. Cross; and secretary, W. R. Arnold. Under this management the mill continued in active operation, producing cardigan jackets, worsted braids, and worsted yarn for knitting purposes, until 1885, when it was reorganized by Mr. James Phillips, Jr., with the following officers: James R. Doudge became president, W. R. Arnold, treasurer, and J. A. Cross, secretary. After this change Mr. Phillips took an active part in the management and the plant was run only on the manufacture of worsted yarn for

weaving purposes, his mills at Fitchburg using nearly the entire production.

On April 17, 1899, with the other mills of Mr. James Phillips, Jr., the Valley became a part of the American Woolen Company.

The manufacturing buildings comprise Mill No. 1, 200 by 64 feet, and Mill No. 2, 143 by 60 feet. These buildings are joined, and practically form one mill and are operated as such. The equipment comprises 23 sets of worsted cards, 19 Noble combs, and 9,840 worsted spindles, together with the reeling, winding, and spooling departments, the production of which is 100,000 pounds per month of worsted yarns. The power of these mills is derived from three Greene engines of 250 horse-power each, together with three upright and five horizontal boilers. In the rear of the main mill are two buildings connected and running at right angles to each other; one, 100 by 50 feet, the other 125 by 60 feet. In the first building the processes of scouring and drying the wool are conducted on the first floor, while the yarn department occupies the second floor; here two and a quarter million pounds of wool are handled yearly. The other buildings comprise the dye-house, the production of which is about 25,000 pounds per week of slubbing and yarn.

In the front yard of the mill are two wooden storehouses, 100 by 49 feet and 70 by 26 feet, respectively, which are used principally for the storing of wool and tops. In addition to this, there is a top-house, 75 by 40 feet, for the storage of tops as they are received from the combing-room.

RIVERSIDE WORSTED MILLS

PROVIDENCE, R. I.

RIVERSIDE MILLS

PROVIDENCE, R. I.

RIVERSIDE WORSTED MILLS

PROVIDENCE, R. I.

The Riverside Worsted Mills were founded by Mr. George W. Chapin and Mr. Lewis T. Downes in 1863, in which year they purchased the site in Olneyville, in the town of North Providence, R. I., on the Woonasquatucket River, and erected the first buildings. The mill contained about thirty looms and employed about two hundred hands.

In 1865 the first corporation was created, with Mr. L. T. Downes as president, Mr. George W. Chapin, treasurer, and Mr. Albert Chaffee, secretary. The first goods produced in the mill were cloths for covering coffins. The material cost very little and sold for good money. Most of the business was done through a German firm in New York. Owing to these parties failing to carry out contracts in the matter of orders for goods, this class of production was dropped. The next goods manufactured were a very fine grade of cassimeres made for Joseph Lee of Philadelphia, and sold through the New York commission house of Hunt & Tillinghast. The next goods manufactured were a fine grade of astrachan and other cloakings for ladies' wear, which sold for a high price. It was upon this class of goods that the Riverside made its first reputation, which were the only astrachans then made in the United States and were the highest priced woolen goods produced in the country. They were called "astrachan cloakings." Machinery for manufacturing this high class of goods could not at that time be easily procured, and much of it was built in the mill machine-shop. A very fine grade of shawls was also

made in the early years of the Riverside Mills, which found a ready and profitable sale.

This mill produced the first piece of worsted goods for men's wear that was made in the United States. In this mill also was used the first Bolette card-feeder, right of which was owned by Messrs. Chapin & Downes. The first teasel cross-gig built and operated in this country was at the Riverside Mills. Also the Houget double cylinder-gig, known as the Chapin & Downes gig, of which they built over one hundred and sold at $1,000 a piece. Here also were used the first self-operating mules brought to this country, which were made by John Tatham in England. The first cold air wool-drying done in the United States was conducted at the Riverside, which mill was the third textile manufactory in the country to adopt electric arc illuminating, the Brush system being installed in 1877.

In 1865 a fire occurred which destroyed the carding and spinning departments, at a damage of about $75,000.

In 1872 Mr. L. T. Downes sold out and transferred all of the mill interests. Later in the same year, on account of the failure of Hoyt, Sprague & Co., who had an interest in the sale of the products for several years prior to 1873, the property was sold at auction and was bought by Mr. E. P. Chapin and operated by his father, Mr. W. C. Chapin, and himself.

It was during the years 1875 to 1877 that the mill established a most enviable reputation in the manufacture of men's worsted suitings, the output being sold through the commission house of A. D. Juilliard & Co. In September, 1878, the title of the mill was again changed to Riverside Worsted Mills, and was duly incorporated with the following staff of officers: E. P. Chapin, president; W. C. Chapin, vice-president; Frederic Condit, treasurer. The mill, owing to the quality of its products, met with phenomenal

success both as to volume of production and favorable prices secured, and for eight years was compelled to operate its whole plant night as well as day, during which period additional land was acquired, much new foreign and domestic machinery was added, and about 2,700 operatives were employed.

An agreement was entered into in December, 1884, with the Oswego Falls Manufacturing Company of Fulton, N. Y., to consolidate the two plants and operate them under one title. A Rhode Island charter was granted as the Riverside and Oswego Mills. This corporation continued in force until the fall of 1889. In 1891, the connection with the mill at Oswego Falls being dropped, a new charter under the laws of the State of Maine was obtained, under the name of Riverside Worsted Mills, at a capitalization of $1,000,000. Mr. John C. Combs became president, Mr. Theophilus King, treasurer, and Mr. Walter Ward, manager, and continued in their respective offices until the transfer to the American Woolen Company in 1899. At that time the property consisted of about seven and a half acres of land owned outright and about one and a quarter acres of leased land. The equipment now comprises 24 sets worsted cards, 30 Noble combs, all necessary worsted spinning machinery, 9 sets of woolen machinery, 370 looms and a well-equipped finishing department, besides all other requisite machinery and appurtenances.

ASSABET MILLS

MAYNARD, MASS.

ASSABET MILLS

MAYNARD, MASS.

ASSABET MILLS

MAYNARD, MASS.

The Assabet Mills were founded by Mr. Amory Maynard, a native of Marlboro, Mass., who in 1845 purchased the water-power at the site of the present plant. In partnership with William H. Knight of Saxonville, a mill was erected and designed for the manufacture of carpets and carpet yarn. On this production the plant began active operation in 1847.

This mill, the nucleus of the present plant, was a wooden structure 100 by 50 feet, and in its first year of operation it produced carpets and yarn to the value of $110,000. The plant was increased quite rapidly, new buildings of brick being added from time to time as business warranted.

On September 10, 1862, the Assabet Manufacturing Company was incorporated under the laws of the State of Massachusetts, with T. A. Goddard as president, T. Quincy Browne, treasurer, and Amory Maynard as agent. Messrs. Augustus and Charles P. Hemmenway were largely interested in the stock of the company, the latter succeeding to the presidency upon the death of Mr. Goddard. Mr. Hemmenway was followed in turn by Mr. W. H. Hill of Boston.

During Mr. Maynard's agency the raw material was bought and the finished product was sold direct. This policy was also pursued after Mr. Maynard had retired and up until 1898, when the goods were sold through Messrs. Oelbermann, Dommerich & Co., of New York City.

Mr. Amory Maynard retired from the active management of

the company in 1885 on account of ill health. He was succeeded by his nephew, Mr. Lorenzo Maynard.

The entire construction of the plant, with the exception of the erection of one mill, 180 by 60 feet, was practically consummated during the agency of Mr. Maynard.

In 1898, Mr. Amory Maynard, a grandson of the founder of the plant, was placed in charge of the mills, succeeding Mr. Lorenzo Maynard. Messrs. Oelbermann, Dommerich & Co. continued as the sales agents of the company until it was assimilated into the American Woolen Company in May, 1899, Mr. Maynard remaining as resident agent.

Attached to the Assabet Mills is one of the finest water-powers in that section of the State. In addition to the natural flow of the river there is a large storage basin of 300 acres, controlled exclusively by the company which has also a three-quarters interest in a basin located in Marlboro, which was purchased from the city of Boston by Mr. Amory Maynard in 1859. This is now known as Fort Meadow Reservoir.

The indicated horse-power of the engines attached to the plant is 1,000, and that of the water-wheels 800, making a total of 1,800 horse-power. The equipment of the plant includes 66 sets woolen cards, 25,476 woolen spindles, and 324 looms. The plant comprises over a score of manufacturing and storehouse buildings, having a total floor space of 421,711 square feet.

The original mill was a wooden structure, but afterward a brick mill was built over the wooden frame, while the machinery was running. It is six stories in height, 170 by 50 feet, having a floor space of 51,000 square feet. Other important buildings include mill now known as No. 1, erected in 1866, which is 124 by 70 feet, four stories in height; mill No. 5, erected in 1868, 157 by 50 feet, of four stories; mill No. 6, 60 by 30 feet, two stories; mill No. 7,

which is the largest in the plant, 225 by 60 feet, five stories in height; mill No. 8, 200 by 45 feet, four stories; all of which were erected in 1872; and mill No. 26, 150 by 60 feet, four stories in height, which was erected in 1892. The property attached to the plant amounts to about seventy-five acres.

SAWYER MILLS

DOVER, N. H.

SAWYER MILLS

DOVER, N. H.

SAWYER MILLS

DOVER, N. H.

The mills are situated at Dover, New Hampshire, on the Bellamy Bank River, utilizing the power of the three lower falls. The American Woolen Company, succeeding to the title, controls all the water privileges on the stream as well as the reservoir of about four hundred and fifty acres in the town of Barrington. Tide-water reaches the "Lower Mill" and is navigable to that point to vessels drawing twelve feet. The Portsmouth and Dover branch of the Boston and Maine Railroad has a station at the mills, which is about sixty-six miles from Boston, by which all freight can be discharged directly into the storehouses.

The original mill was built in 1824 by Alfred I. Sawyer, who came to Dover from Marlboro, Mass. He commenced the business of carding and cloth-dressing in that year on the site of what is now known as the "Upper Mill." In 1832 he began the manufacture of flannels. Alfred I. Sawyer died in 1849 and the business passed to his brother Zenas. In 1852 Zenas retired, and the mills were transferred to two younger brothers, Francis A. and Jonathan Sawyer, who continued business under the firm name of F. A. & J. Sawyer until 1873. In that year the Sawyer Woolen Mills was incorporated with a capital of $600,000, Charles H. Sawyer, son of Jonathan Sawyer, becoming part owner and agent of the mills. The firm of F. A. & J. Sawyer, however, continued as selling agents of the mills' products. In 1873 the mills had sixteen sets of cards;

these were added to gradually until 1885, when there was a total of thirty-four sets. Flannels were made until 1862, when the product of the mills was gradually changed to the manufacture of fine woolens for men's wear. On these fabrics the Sawyer Woolen Mills have gained an enviable reputation for quality and reliability among the trade and the public. In 1890 fancy worsteds were included in the product of the mills, and a five-set worsted mill was added to the plant.

The mills have practically been rebuilt since 1873, and the equipment is modern and first-class throughout. There has been built up around them a substantial and prosperous village, called "Sawyers." The company itself owns some fifty tenements which are rented to its employes.

Since the mills passed into the control of the American Woolen Company in May, 1899, the worsted machinery has been moved to one of their worsted mills, and five sets of woolen machinery have been added to the Sawyer Mills plant, which makes in all a total of 38 sets of woolen machinery with 11,032 spindles and 150 looms, giving employment to about 500 operatives.

The plant comprises the following buildings, with their equipment:

Upper Mills.—The office building is 57 by 40 feet, is two stories in height, and is especially well equipped.

The main mill, erected in 1873, is 368 by 40 feet, and has four stories. Connected with the main mill is an "L," erected in 1886, 182 by 68 feet, of three stories. A part of the carding and spinning is located in this mill, and all of the weaving and finishing.

The Dye-House building, erected in 1883, is 142 by 71 feet, and of three stories height. This building is used for dyeing, picking and mixing, and wool sorting.

The Yarn Mill and Cloth Storage building, erected in 1892, is 290 by 50 feet, having two stories. This building was built and used for a worsted mill and cloth storage until the removal of the worsted machinery. It is now used for warping, mule spinning, and cloth storage. This building is on the opposite side of the river from the main mill and is connected with it by bridges.

The machinery in the Upper Mills consists of 23 sets of cards, comprising 18 sets of 40-inch and 5 sets of 48-inch, 7,272 spindles, 10 dressing frames and 150 looms, together with the preparing and finishing machinery necessary for the entire plant. The steam plant consists of five upright Manning boilers, of 150 horse-power each, and a 300 horse-power Harris-Corliss engine, which, together with two water-wheels, furnishes the power for this group of mills. In addition to the above there is an auxiliary Westinghouse engine of 125 horse-power capacity, for use when the water is low. The plant, therefore, is not affected by drouths, but is equipped to run to its full capacity at all times.

The Lower Mill, located at tide-water on the Bellamy River about one-quarter mile below the Upper Mills, was erected about 1860. Additions and alterations were made in 1878. This mill is used for carding, spinning, and twisting machinery, and has 15 sets of 40-inch cards, 3,760 spinning and 3,160 twisting spindles, which are run by an 80 horse-power water-wheel, with an auxiliary engine for use whenever there is lack of water. The stock is prepared and the cloth woven at the Upper Mills.

In addition to the Upper and Lower mills there are five brick storehouse buildings of the following dimensions, respectively: 126 by 40 feet, 4 stories; 130 by 40 feet, 4 stories; 53 by 50 feet, 2 stories; 83 by 30 feet, 2 stories, and 96 by 30 feet, 2 stories, giving a total of 57,000 square feet for storage purposes. Three of

these storehouses are located adjacent to the railroad track, from which freight can be directly discharged, and are connected with the main mill by bridges.

There are also two wooden waste-houses located near the Lower Mill, one 60 by 30 feet, of two stories, and the other 78 by 22 feet, of one story, giving a total of about 5,000 square feet floor space.

The Carpenter Shop is 110 by 20 feet, of two stories, and is equipped with a complete set of wood-working machinery.

The Machine Shop is 55 by 40 feet, of two stories, with machine shop equipment.

These buildings enable the mills to make all necessary repairs on the premises.

Attached to the plant is a coal-shed 83 by 52 feet, with a capacity of 1,500 tons. This is located near the railroad track, from which coal cars can be emptied into the shed.

The mill reservoir is located about one-quarter mile from the mill, on a high elevation. Sufficient pressure is derived from this source for fire purposes, and in connection with the city hydrant system affords ample fire protection to the mill property.

The entire plant is of brick, with the exception of the wooden waste-houses and the coal-shed. About 3,500,000 pounds of wool are consumed annually, producing 1,000,000 yards of cloth. The mills employ 500 hands. The product of the plant is fancy cassimere suitings and trouserings, fancy cheviots, whipcords and covert cloths, and woolen novelties.

BAY STATE MILLS

LOWELL, MASS.

BAY STATE MILLS

LOWELL, MASS.

BAY STATE MILLS

LOWELL, MASS.

The Bay State Mills are located at Lowell, on the west bank of the Concord River, and on the Southern Division of the Boston and Maine Railroad.

The establishment of this plant dates back to 1865, when Luther W. Faulkner of Billerica, Mass., who had formerly been engaged in woolen manufacturing at Concord, N. H., and Billerica, Mass., built and operated a seven-set flannel mill on the site of the present plant.

Mr. Faulkner admitted his sons, Frederic and John A., to partnership in 1865 and 1879, respectively, and under the firm name of L. W. Faulkner & Sons continued in active business till 1897.

On October 6, 1880, the original mill, together with the Chase Mill adjoining, was totally destroyed by fire, which to this day is remembered as one of the notable conflagrations in the annals of Lowell. The mill was immediately rebuilt and equipped for the manufacture of dress goods, and in 1887, the rights and privileges of the Chase Mills having been acquired, it was enlarged to a 15-set capacity and the manufacture of fancy woolens was begun.

In 1897 the partnership of L. W. Faulkner & Sons was dissolved and the business incorporated under the laws of the Commonwealth of Massachusetts as the Faulkner Mills, continuing as such till April 29, 1899, when the plant was assimilated by the American Woolen Company, Mr. John A. Faulkner being retained as agent.

Under the new ownership the capacity of the mill has been

very greatly increased by the addition of the latest and best machinery, bringing its equipment up to the highest perfection.

The plant is fortunate in having a never-failing water-power of 150 horse-power, which is augmented by a 250 horse-power Harris engine, together furnishing the entire power of the plant.

All freight is landed at the elevator doors of each building. Building No. 3, which is 300 feet long by 52 feet wide and five stories in height, is the main building, and contains 15 sets of 60-inch and 7 sets of 48-inch Davis & Furber cards, 26 Davis & Furber mules, 9,020 spindles, and 103 90-inch Crompton-Knowles looms, and also all the finishing machinery necessary to handle the entire production of the mill.

In addition to the main building is a dye-house 270 ft. long by 35 ft. wide, one story high, which has recently been rebuilt and entirely refitted with all modern machinery designed to handle a large production.

There are also two picker-houses and two boiler-houses together with storehouses, tenements, office and stable buildings.

The present productive capacity of this plant is eighty pieces of thirty-ounce kerseys per day, and with the contemplated changes it will undoubtedly reach the total of one hundred pieces per day in the immediate future.

BEAVER BROOK MILLS

DRACUT, MASS.

BEAVER BROOK MILLS

DRACUT, MASS.

BEAVER BROOK MILLS

DRACUT, MASS.

Some few years previous to 1851, the exact date not being known, a small wooden mill, about 60 by 40 feet and four stories high, was erected for cotton manufacturing. It was here that the first cotton thread made in the United States was produced, and here, also, it is claimed, the first cotton duck or canvas made in the country was manufactured. The property was owned by John H. Pierceson of Boston, but was run and managed by his agent, Peter Lawson, who was afterwards succeeded by his son, George Lawson, who changed the product of the mill to what was known as blue drilling and sheetings.

In 1851 the building was raised and two stories of stone were added. It was continued as a cotton mill until about the year 1862. In 1863 the plant was bought by a company composed of John A. Smith of Lowell, Edward Barrows of Dedham, and a Mr. Hastings of Boston, who removed the cotton machinery and replaced it with woolen machinery taken from the mill at Dracut, which they also bought, and started to manufacture cassimeres.

The mill was operated by this company about ten years, followed by a period of idleness of about three years, when in 1876 it was leased by Mr. Michael Collins.

About that time the village proper contained about half a dozen houses and a large boarding-house.

After about three years' operation Mr. Collins purchased the mill, at which time it contained 6 sets of cards and 22 looms.

Additions were made at various times bringing the equipment up to 7 sets of cards and 39 looms.

In the spring of 1884 ground was first broken by Mr. Collins for the new mill, which consisted of a three-story main mill 212 feet by 58 feet, and a weave shed 165 feet by 70 feet. Most of the machinery was moved from the old mill into the new one, and started to run in February, 1885. The first fire was started in the boilers in the new mill October 2, 1884. The plant at this time contained 72 looms and 10 sets of cards.

In 1893 three stories were added to the main mill, making six stories in all. After completing the new addition, 32 new looms were added and 9 sets of cards, making a total of 104 looms and 19 sets of cards.

In 1895 a new weave-shed 128 feet by 94 feet, a boiler-room, and dye-house were added to the plant. In addition to the mill plant, Mr. Collins built about fifty tenements during his time of proprietorship.

In May, 1899, the property was sold to the American Woolen Company which has made extensive improvements and more than doubled the capacity of the plant, until to-day it is one of the largest woolen mills in the country, containing 39 sets of cards, 16,960 spindles, and 168 looms, and having eighty-two tenements. There has been no practical change in the nature of the product, consisting chiefly of beavers and kerseys, since Mr. Collins first assumed control of the mill.

The small wooden mill which formed the nucleus of the plant was in late years known as the "Old Mill." It was used chiefly for storage purposes, although in the two lower stories of stone there was wool-scouring and carbonizing machinery. In the early morning of the 18th of April, 1900, the wooden portion of the building was totally destroyed by fire, together with a large

stock. On its site, however, there has now been built a fine large five-story building of modern design, to be utilized for storage as well as for manufacturing purposes. It is 140 feet long with an average width of about 73 feet, having a total floor space of 51,205 square feet.

VASSALBORO MILLS

NORTH VASSALBORO, MAINE

VASSALBORO MILLS

NORTH VASSALBORO, MAINE

VASSALBORO MILLS

NORTH VASSALBORO, MAINE

In 1836 Peter M. Stackpole purchased of Southwick Brothers a building on the bank of Mile Stream, which stood on the site of the present plant. Mr. Stackpole put in finishing machinery and one set of cards to card rolls for the farmers in the neighborhood, which they spun into yarn by hand and wove on hand-looms into homespun cloth, which they brought to Mr. Stackpole to be finished for their family wear.

This mill was burned in 1863. In 1837 Peter M. Stackpole and his son-in-law, Alton Pope, bought of Charles Davis and Timothy Rowell the upper dam privilege and built a wooden mill building, which is still standing but has been converted into a tenement. In 1848 they incorporated themselves associates as the Vassalboro Manufacturing Company, with a capital not exceeding $75,000, for the purpose of manufacturing wool and cotton. They ran their mill on fine cassimeres and doeskins. In 1847 John D. Lang became interested with them and bought the present mill site, on which was then a tannery, from David Pingree of Salem, Mass., and erected the mill known now as No. 1. They moved the machinery from the upper mill building and added to it. The goods were sold by F. Skinner & Co., of Boston. The mill, however, did not prosper financially. In 1849 a new company was formed, called the North Vassalboro Manufacturing Co., and was run by John D. Lang and Alton Pope in connection with F. Skinner & Co. They manufactured doeskins, broadcloths, and cassimeres—all three-fourths-width goods. They exhibited in the London ex-

hibition of 1851, and took the gold medal for the finest and best woolen goods made in the world. In 1856 they built the present mill dam a few feet below the old one. In the financial panic of 1857 the company failed. In 1858 Snider & Co., of Boston, became interested in this plant and employed Thomas S. Lang, son of John D. Lang, as agent, and Albert Cook as superintendent to manage the mill. Up to the time of the war the mill ran on cassimeres, tricots, beavers, and cheviot overcoatings, but during the war changed to making army goods for the United States government, running night and day, while the equipment also was increased.

In 1863 Edward Atkinson of Boston became treasurer. The present No. 2 mill was built in that year, and shortly afterward the building known as No. 3 mill was converted from a grist mill into part of the woolen mill plant. In 1865 the mill employed 348 hands and had a monthly payroll of $10,000 and upward. The company ran along until 1866, when the commission house of F. Skinner & Co. of Boston failed. On August 3d of this year the property was sold to the Vassalboro Mills Company for $400,000. Mr. Hosford, of Lowell, became treasurer and George Wilkins agent. During the Hosford-Wilkins administration the mill declared large dividends, as high as $36,000 for the six months. At this time the principal product was tricots and cheviot overcoatings. In April of 1871 the charter expired by limitation, and the Vassalboro Mills Company transferred to the Vassalboro Woolen Mills all the property held by them. Mr. Hosford continued as treasurer until he died, in 1879, when Oscar Iasigi was made treasurer. Mr. Iasigi was drowned in the early spring of 1893 and Mr. A. G. Pollard became treasurer, holding the office until May 1, 1895, when he was succeeded by Mr. R. A. Clogher, who had been the agent of the company until 1888. On November 20, 1888,

the property was sold at sheriff's sale to satisfy the claim of Theophilus Walker, and was bid in by Mr. Walker. Mr. Walker ran the mill until the fall of 1889, when he died suddenly. His estate sold the property (stock in the mill and goods on the market) to Samuel Williams, of Boston. The mill was operated by Mr. Williams very successfully until December 3, 1890, when he formed the corporation of the Vassalboro Woolen Company in association with Thomas Sampson as active manager, and in June, 1899, they transferred the plant to the American Woolen Company. The only fire loss known in the history of the plant was the burning of the original mill in 1863, and a small fire in the boiler-room in 1860, with a loss of about $1,000.

The plant now manufactures chiefly fancy woolens and has an annual productive capacity of about fifteen thousand pieces. The mills are equipped with 25 sets of cards, 8,380 woolen spindles, and 108 broad looms. The No. 1 Mill is 212 by 80 feet, of three stories; No. 2 Mill, 200 by 45 feet, of four stories, and No. 3 Mill, 100 by 80 feet, of four stories. The dye-house, including boiler-room, is 120 by 85 feet, of one and one-half stories. In addition to these there are several storehouses. The fire service plant consists of two rotary pumps driven by water-wheels and one steam pump, with an estimated total capacity of about four thousand gallons per minute. The mill is surrounded by an eight-inch pipe, with six hydrant houses having a three-way hydrant in each. The water supply for power comes from China Lake through Seven Mile Stream; the lake has an area of about 4,500 acres, and has generally proven sufficient to run the mill without using any steam-power, except in unusually dry seasons.

PURITAN MILLS

PLYMOUTH, MASS.

PURITAN MILLS

PLYMOUTH, MASS.

PURITAN MILLS

PLYMOUTH, MASS.

The Puritan Mills at Plymouth, Mass., owing to the symmetry of the buildings and their location upon the shore of the historic Plymouth Harbor, are most attractive in appearance. The main building is three hundred and fifteen feet long, and in addition there are numerous ells and separate buildings.

The nucleus of the present property was erected in 1864 by a small stock company, including many of the prominent citizens of the town, under the style of Plymouth Woolen Mills. It was at the time when gold was at its highest figure, and the constant depreciation of all values was very discouraging to the builders of the plant. It was sold in 1871 to Dwight F. Faulkner of Boston. Previous to this time nothing but scarlet flannels had been manufactured. Mr. Faulkner did not do much with the plant, and it lay practically idle until 1878, when he sold it to Francis A. Sawyer and others, comprising the Franklin Woolen Company of Franklin, N. H.

These parties made extensive alterations, adding the north tower and "L" and building a large storehouse. They equipped the mill with new machinery throughout, making it an eight-set woolen mill with about forty broad looms. Under the style of Plymouth Woolen Company they started manufacturing high-grade cassimeres, which had been their line of work in Franklin.

Upon the death of F. A. Sawyer, in 1881, the property passed into the hands of Henry Sawyer and R. S. Douglass, his nephews. The mill gradually increased in size until an addition in power

and room was necessary. In 1895 a new engine was put in, a new boiler-house was built and equipped with a complete battery of new boilers, the south tower was built, additional machinery installed, and a complete designing department built upon the roof.

The difference in class of goods made and the gradual introduction of worsteds had somewhat changed the proportion between cards and looms, and there were now nine sets of cards and seventy-two broad looms. The goods were all sold direct to the trade and no commission house employed. About a third of the product was sold direct to tailors throughout the country.

In 1899 the property was sold to the American Woolen Company who have made extensive alterations. A monitor roof has been built over the whole mill, and an electric lighting plant installed. The production of the mill has been turned entirely upon worsted goods and changes made in the machinery with that in view. There are now 162 Knowles' 82-inch fast looms which comprise, with their complement of machinery, the entire equipment of the mill, the yarn for the looms being supplied by other mills in the company, thereby effecting economy in the production and increasing the output.

The history of the town is so old that the mill can hardly claim to have had a share in its making, although it certainly is closely identified with the present prosperity of the community. It is one of the two or three concerns that have regularly paid wages in the town for a number of years, and is the head of a prosperous community of its own in the north part of the town.

While so modern compared with Plymouth history, the mill has certain associations with matters of historic interest. The

land upon which it is built was formerly owned by William Bradford, Governor of Plymouth Colony. Plymouth Rock is a few minutes' walk along the shore, while the impressive National Monument to the Pilgrims crowns the hill at the foot of which stands the mill plant.

ANDERSON MILLS

SKOWHEGAN, MAINE

ANDERSON MILLS

SKOWHEGAN, MAINE

ANDERSON MILLS

SKOWHEGAN, MAINE

In the fall of 1874, some of the citizens of Skowhegan, Me., who had long entertained a desire to have a woolen mill in their town, entered into a compact for that purpose with Mr. Lewis Anderson, who was at the time superintendent for James Roy & Co., of West Troy, N. Y. The citizens agreed to construct a mill large enough for four sets of machinery. The building was commenced in September of that year, and was a good substantial brick mill, 120 by 54 feet, three stories and attic, with dye-house and picker building outside.

The machinery was installed in the spring of 1875, when two sets of cards, two mules, and ten looms, together with the necessary finishing machinery for a two-set mill, were put in, and on June 29, 1875, the first loom was started on fancy cassimeres. The first case of goods was shipped about August 1st of that year. Messrs. Rufus S. Frost & Co., of Boston, were the selling agents, and this well-known firm and their successors continued to sell the mill's goods until the plant was sold to the American Woolen Company in May of 1899.

An additional set of cards, a mule, and some looms were put in during the summer of 1876, and notwithstanding the hard times then existing the business proved profitable, and it was found necessary to add still another set of machinery. To meet the increasing demand for the goods the mill was operated a good deal of overtime, and during the generally dull season of 1876-78,

on account of its equipment of new and improved machinery, the mill continued its active operation.

At the end of four years Mr. Anderson bought out all of the stockholders of the Skowhegan Woolen Manufacturing Company, who had built the mill and were till then co-partners with him under the title of Lewis Anderson & Company.

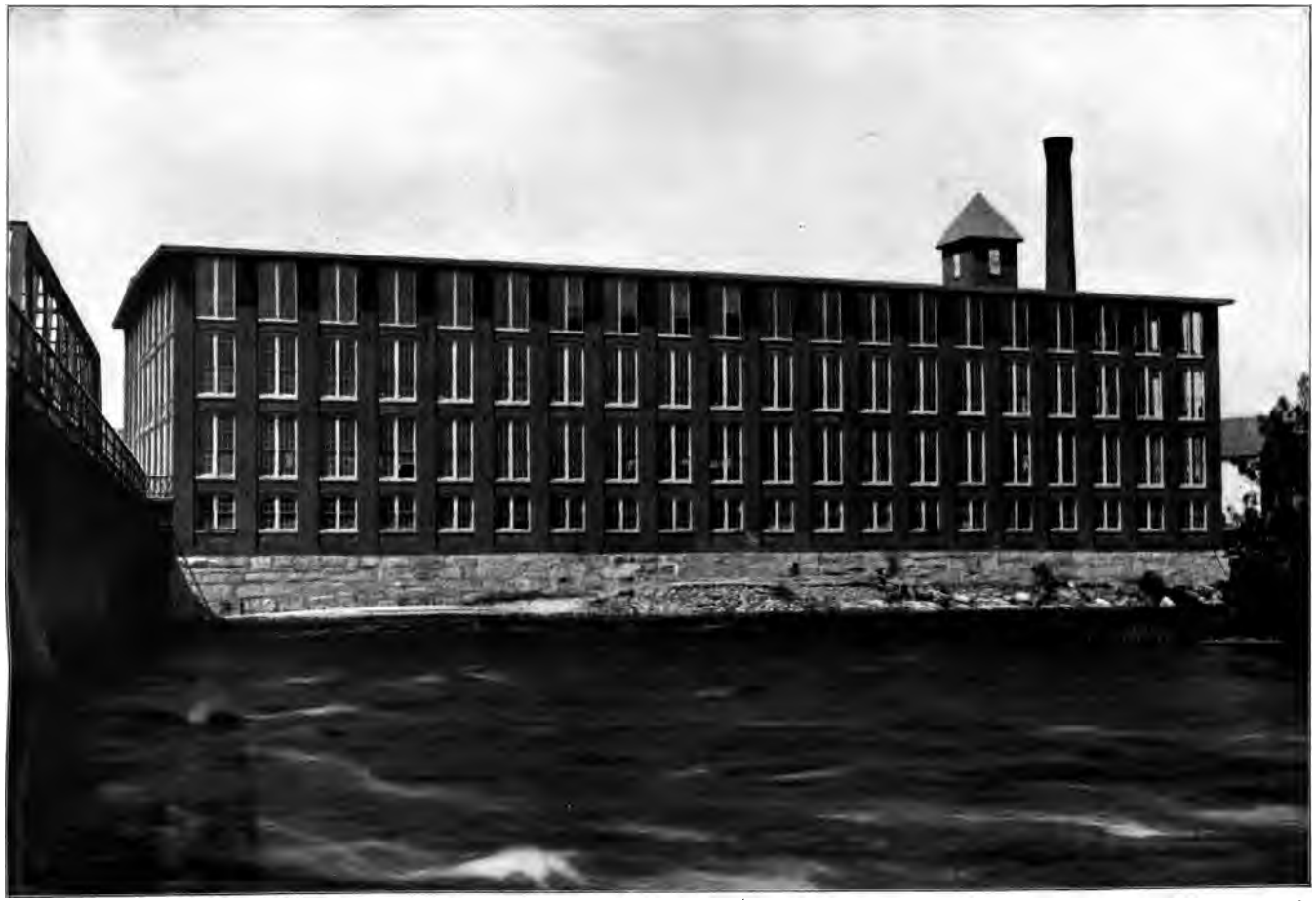
In 1879 Mr. Anderson took Mr. R. B. Shepherd into the concern, and in that year started to build Mill No. 2, also of brick, 160 by 58 feet. They equipped the new mill at first with five sets of cards, two of them being Platt's English 60-inch iron cards, and also four Platt mules, but finally installed Davis & Furber mules and cards and Crompton looms. The equipment now comprises 12 woolen cards, 4,600 woolen spindles, and 50 looms.

The first piece of tricot dress goods made in the State of Maine was manufactured here, and the demand soon warranted changing the whole product upon this fabric, which was the chief manufacture for several years. There were also produced about this time lines of broadcloths, beavers, etc., but finally it was deemed advisable to resume the manufacture of fancy cassimeres and cheviots, on the production of which the mill has been constantly engaged for the past ten or twelve years.

The plant stands on the south side of the Kennebec, which river furnishes power, with an auxiliary steam engine of 100 horse-power.

KENNEBEC MILLS

FAIRFIELD, MAINE



KENNEBEC MILLS

FAIRFIELD, MAINE

KENNEBEC MILLS

FAIRFIELD, MAINE

The Fairfield Textile Mill Association, comprised of citizens of Fairfield with four exceptions, built the mill in 1895 and elected as its officers, Amos Gerald, president, V. R. Connor, treasurer, and A. H. Totman, clerk.

The mill was built under specifications given by Mr. Thomas Sampson for a worsted mill, and a contract was signed by Mr. Sampson and Mr. Samuel Williams, under which they agreed for a specified rental to equip the mill with machinery and run it as a worsted mill under a corporation to be formed later and to be known as the Kennebec Worsted Mills.

After the machinery had been ordered Mr. Williams and Mr. Sampson severed their mutual contract, and the mill was taken by the latter under a new contract to run it as he thought best. Mr. Sampson continued to operate it until the American Woolen Company took possession in August of 1899.

As soon as Mr. Sampson made the new contract he at once installed the Grinnell Automatic Sprinklers and put in a steam plant. Mr. Sampson also equipped the mill with six sets of 60-inch cards, six 420-spindle mules, six sets of shoddy cards and mixing pickers, four rag pickers, and a complete carbonizing plant, and started the manufacturing of yarn for the Vassalboro Woolen Mills. It was said at the time to be one of the most complete shoddy plants in the country.

About the first of May, 1899, however, Mr. Samuel Williams obtained the controlling interest of the Fairfield Textile Mill Com-

pany, and a little later he turned his interest over to Mr. Sampson, who soon after sold it to the American Woolen Company. At the present time the equipment of the mill comprises seven sets of woolen cards with 5,120 woolen spindles and 37 looms.

The mill, consisting of one main building, is 200 feet long by 100 feet wide.

MANTON MILLS

MANTON, R. I.

MANTON MILLS

MANTON, R. I.

The Manton Mills are located on the Woonasquatucket River, on the line of the Providence and Springfield Railroad, in what was formerly the town of Manton, R. I., but which has now become part of the city of Providence.

The old stone mill was built in 1835 by Messrs. Manton & Kelly. It was 80 feet long and 45 feet wide, having two stories and an attic. The Mr. Manton of this firm was for a good many years connected with the Boston Manufacturers' Mutual Fire Insurance Company. After the firm retired the mill stood idle for a number of years, and was next operated by James Hervey as superintendent for Mr. George C. Nightingale as trustee. Under this management the mill was sold at auction and bought by Mr. John Carter Brown of Providence. In 1857 Mr. Brown deeded the property to the Lonsdale Company. The mill at this time contained sixty looms and facilities for making cotton cloth. The Lonsdale Company continued to operate it until the seventies, when the machinery was removed to Lonsdale and another period of idleness ensued.

In 1880 Mr. Charles Fletcher bought the property and at once commenced to equip it for a woolen yarn mill; new water-wheels were put in, with new shafting and a 125 horse-power Corliss engine, four sets of woolen cards, and four 384-spindle Tatam mules. In 1883, before any stock had been put into the mill, Mr. Fletcher sold the property to Mr. Horace A. Kimball. The mill was enlarged, and forty 92-inch Knowles

looms were installed and the production of worsteds for men's wear begun.

Nearly every year has seen an additional growth to the plant. The old stone mill has been removed, and the new buildings now cover a floor space of 120,000 square feet, and contain nine sets of cards, 2,640 mule spindles, and 185 Crompton and Knowles looms, and boilers with a capacity of 700 horse-power. There is also a dye-house large enough to supply the looms with all the fancy yarns they require. The buildings are modern in construction and are all lighted by arc and incandescent lights. The water-power is supplied by the river on which the mill is located, and a 300 horse-power Greene engine. The mill has a complete fire service connected with that of the city of Providence, which has at this point 92 pounds pressure.

The plant was sold to the American Woolen Company in May, 1899, and now produces fancy worsteds for men's wear with an annual product of over $1,000,000 in value. Mr. Kimball was for some time retained as the resident agent for the company, but has lately been succeeded by Mr. Edmond Corcoran. The plant now comprises eight manufacturing and storage buildings, having an aggregate floor space of 97,397 square feet.

ANCHOR (INMAN) MILLS

HARRISVILLE, R. I.

ANCHOR (INMAN) MILLS

HARRISVILLE, R. I.

ANCHOR (INMAN) MILLS

HARRISVILLE, R. I.

In the town of Burrillville, R. I., just west of the village of Harrisburg, and so closely connected as to form an intimate part of that place, is the village of Graniteville, in which are located the Inman Mills of the American Woolen Company.

Here is one of the best water privileges in the town, there being an excellent fall and an abundant flow of water nearly the entire year, which is supplied by the stream formed by the confluence of the Pascoag and Clear Rivers.

In 1849 the first mill on this site was erected by Syra and Stephen L. Sherman, who at that time owned a considerable portion of the land in that vicinity. Syra Sherman was a stone-mason and built the mill himself. He had but few assistants in the construction and so largely was it his personal labor that nearly nine years' time was occupied in the work of building.

But this structure was not destined to remain long a monument to his perseverance and skill, for in 1852 it was destroyed by fire. During the brief time preceding the fire it was leased and operated by J. T. Seagraves & Co., and so anxious were they to continue manufacturing there that the mill was speedily rebuilt and was operated under this firm name until 1871. During the greater part of that time John Chase was superintendent. The original partners in the firm of J. T. Seagraves & Co. were Jacob T. and Josiah Seagraves, who had been members of the Union Woolen Company which operated the Union Mill in Pascoag from 1838 to 1847. Their successors in business at Graniteville were James

S. Phetteplace and George A. Seagraves, who also operated a wholesale grocery store in Providence under the firm name of Phetteplace & Seagraves, and who, after their lease at Graniteville expired, operated the Central Falls Woolen Mills at Central Falls. While they were in Graniteville they carried on business under the old firm name of J. P. Seagraves & Co.

In 1871 G. N. & J. A. Smith leased the mill and ran it until about 1875, when they became financially embarrassed and failed, due principally to the complications and conditions brought about by the Sprague failure in 1875.

In 1876 it was leased to a new copartnership, styled the Graniteville Manufacturing Company, with G. N. Smith as agent, and by them operated until 1879, when it was again destroyed by fire.

The mill remained in ruins until the summer of 1882, when it was purchased by William A. Inman from the Sherman heirs, and in the fall of the same year the present substantial plant was erected and ready for operation. Mr. Inman owned and operated the plant from that time until 1899, when he sold it to the American Woolen Company, by whom he was retained as resident agent.

Both of the earlier structures were similar in size to the present mill and were designed to accommodate from ten to twelve sets of cards. The product has always been woolen or worsted goods. Fancy cassimeres were manufactured by J. T. Seagraves & Co., and woolens and worsteds by the Smiths. The plant is now equipped for the manufacture of worsted goods.

The present mill is a massive-looking modern stone building, 200 feet long by 54 feet wide, three stories in height, with a gravel roof, and has two large square towers on the front, which give it an imposing appearance. Adjoining the main structure on the west there is a two-story building used as a drying-room, dye-

house, engine-room, and boiler-house, and a smaller stone building near by is used as a stock-house. On the north is the mill office, a neat one-story building of wood, with an annex of stone adjoining.

The equipment consists of seventy-six broad looms and the necessary complement of reeling, spooling, dressing and finishing machinery, and dyeing facilities to prepare and finish the product of the looms. The abundant water-power is augmented by an engine.

In the immediate vicinity and on the same estate are a number of tenements and a boarding-house for the accommodation of the employes. Although not in close proximity to a railroad station, a spur track runs directly into the mill yard, affording all necessary freight facilities.

This plant has recently been united with the Sheffield Mills of Pascoag, R. I., and operated as one plant, under the management of Mr. Inman, the two being known as the Anchor Mills.

ANCHOR (SHEFFIELD) MILLS

PASCOAG, R. I.

ANCHOR (SHEFFIELD) MILLS

PASCOAG, R. I.

ANCHOR (SHEFFIELD) MILLS

PASCOAG, R. I.

The site where the mill now stands was owned and occupied in 1826 by Messrs. Pliny & Nicholas Sayles. Their manufactory was a scythe and ax shop, the water-power being utilized to run a trip-hammer and the other machinery used.

In 1833 the property was sold to Messrs. Otis & Eliot Eddy, who equipped the shop with one set of machinery for the manufacturing of satinets, continuing to run this plant until 1839. The property was then leased to Messrs. Lyman Copeland & Lyman Hawkes, who managed it until 1847, when it was purchased by Mr. John T. Fiske. Mr. Fiske reorganized the plant and installed thirty-six looms, which he operated on print cloths until 1857. Mr. Fiske then leased the property to Messrs. Hawkes & Fowler, who continued the manufacture of satinets until 1859, when the property was burned. It was rebuilt, however, in the same year by Mr. Fiske, the new building forming a part of the present plant.

The buildings were equipped with two sets of cards and sixteen three-quarter-width Woonsocket looms, which produced satinets under Mr. Fiske's management until 1867, when he took his son, Mr. John T. Fiske, Jr., into the firm, under the name of John T. Fiske & Son, and at the same time increased the equipment of looms to twenty-four.

In 1883 Mr. John T. Fiske, Jr., purchased the plant and erected an addition of 112 feet. Mr. Fiske took out all of the

old machinery and installed thirty broad looms of the Crompton make, with full equipment for the manufacture of worsted goods.

The plant was then known as the Sheffield Worsted Mills. In 1888 Mr. Fiske added eighteen looms to the equipment and in 1890 twenty-two more, when he also constructed a new engine and boiler house and machine-shop, a stock-house and picker-house combined, and a large addition for spinning, carding, and weaving. He also added an engine, water-wheel, and boilers, and erected a new chimney.

The mills were incorporated as the "Sheffield Worsted Mills" in 1898, and in May of the following year the plant was assimilated into the American Woolen Company.

CHASE MILLS

WEBSTER, MASS.

CHASE MILLS

WEBSTER, MASS.

CHASE MILLS

WEBSTER, MASS.

The Chase Mills, located at Webster, Mass., were built in 1860, by Jonathan Chase, and were operated by Oscar F. Chase & Co., which comprised Oscar F. Chase, son of Jonathan Chase, and Lucius S. Harris.

The equipment of the original mill included six sets of cards and twenty-four broad looms. The production was mainly fancy cassimeres.

In 1865 the equipment was increased to eight sets of cards and thirty-two looms, additions being made to accommodate the new machinery.

The firm in 1870 changed to Jonathan Chase & Sons, and comprised Oscar F. Chase and Frederick T. Chase, both sons of Jonathan Chase. In 1875 Oscar F. Chase retired from the partnership, and the remaining partner, Frederick Chase, greatly increased the capacity of the plant. Additions were erected and new machinery installed in 1876, 1878, 1884, and 1892, until in the latter year the equipment included four sets of cards and one hundred and seven broad looms.

Up to 1886 the production of the plant consisted of woolen goods only. In that year, however, the manufacture of piece dyes and fancy worsteds was begun.

In 1898 the firm of John Chase & Sons retired from business and was succeeded by the Chase Woolen Company, a corporation organized under the laws of Massachusetts, having as its officers, Frederick T. Chase, president, and Prentiss Howard, treasurer.

Upon the death of Mr. Chase, in 1898, S. Walker Janes was elected the president of the company. In 1899 the property was absorbed by the American Woolen Company, who largely increased the capacity of the plant. The equipment now comprises 14 sets of woolen cards, 8,904 woolen spindles, and 131 looms.

BROWN MILLS

DOVER, MAINE

BROWN MILLS

DOVER, MAINE

BROWN MILLS

DOVER, MAINE

Located at Dover, Piscataquis Co., Maine, on the Piscataquis River, at what was known in the early deeds as Piscataquis Great Falls, is the Brown Plant. This was a notable point on the river, as the water falls twenty-three feet, where the Indians were accustomed to congregate from far and near to fish for salmon and shad. It was the head of navigation for shad, and The Eddy, below the falls, was a famous fishing-pool.

The first mill was built by the proprietors of the township, who were Mr. Charles Vaughan of Hallowell, Maine, and members of his family in England. Mr. John Merrick, a son-in-law of Charles Vaughan, who settled in Philadelphia, became a copartner at an early date.

A timber dam was built in 1825, and the construction of a gristmill commenced. This was the year of the Mirimichi fire, which started in New Brunswick and swept a large area in Eastern and Northern Maine, and the water in the river was phenomenally low. It was easy to cross dry-shod all about the falls. This dam has been maintained by repairs nearly in its original form and some of the original timbers probably still remain in it.

The Piscataquis Manufacturing Company was chartered March 6, 1829. In 1830 S. P. Brown, then twenty-one years old, of Byfield, Mass., Ould Newbury, was hired, and the first mill was built and started with a set of custom cards and a little finishing machinery for doing the custom business of those days in a new country, Mr. Brown being admitted to a partnership in the business.

In 1836, a little additional machinery having been put in, the Piscataquis Manufacturing Company was organized, and in 1837 the mill was making cassimeres, trucking them thirty-five miles through the woods to tide-water at Bangor, the teaming being done with oxen. From Bangor they went to Philadelphia by sailing-vessel, where they were consigned to a commission house and sold on account. At this time there was one full set of machinery besides the facilities for custom carding and cloth dressing.

This mill, together with the grist-mill near by, was destroyed by fire which caught from a defective chimney at 4 a.m., March 13, 1840, and of course there was not a dollar of insurance. The English proprietors were discouraged and declined to take a hand in rebuilding anything but the grist-mill, but were very kind to Mr. Brown. They sold him water-power on easy terms and loaned him money. "The neighbors" also got together and held a public meeting, the result of which was that on a Monday morning, soon after the fire, they swarmed with axes upon the land of a near-by farmer, whose contribution was the standing timber and unlimited hard cider. They cut and hewed the timber and hauled logs to a neighboring saw-mill which had proffered its services free, where they were sawed into boards and small joists, and on the following Saturday night at sunset the master carpenter duly "walked the ridgepole" of the new mill, which was 50 by 30 feet and three stories, all labor and materials having been freely donated.

(The public-spirited farmer was Adna Parsons, a stanch patriot, who is said to have voted for Andrew Jackson to the day of his death, and the master carpenter was Major Isaac Blethen, the village hotel-keeper and the most noted athlete and smuggler that ever lived in these parts. They both went to their rest many years ago.)

Mr. Brown soon had a set of machinery running with which he was manufacturing cloth for the country trade and doing the usual custom business. It may be worthy of note that he bought his factory bell of Dummer Academy in Byfield.

He was generally prosperous in a small way, and the mill was enlarged a little from time to time, so that in 1857 it contained three sets of machinery. Also the surplus water-power and outlying land were bought in from time to time until the whole was acquired, including the grist-mill. In 1855 a fall freshet carried out the canal wall and bulkhead, and in the spring of 1857 an ice freshet, helped on by the breaking of a dam up river, took them out again and did other damage.

In 1866 Mr. Brown took his son, the present agent, into partnership under the firm name of S. P. Brown & Co. The foundation for a new brick mill, to contain six sets of machinery, had been laid a few rods below the old mill, and the building was completed in 1866. Mr. Brown died in July, 1867, and his heirs continued the business without change of proprietorship, except that which came through inheritance, until the transfer to the American Woolen Company. In the fall of 1867 the machinery was moved from the old mill into the new, and other machinery was added soon thereafter to complete the six sets. The old mill stood empty a few years, and was torn down and the materials used in the construction of a storehouse and other out-buildings.

In 1881 the mill was enlarged to twelve sets, and in 1883 the Brown Manufacturing Company was organized under the general law and the title of S. P. Brown & Co. was dropped.

Mr. Brown's first commission house was Messrs. Parker, Blanchard & Wilder, and his second was Messrs. Johnson, Sewall & Co., who were succeeded in 1852 by Messrs. Faulkner, Kimball & Co., Faulkner, Page & Co., successors, who have sold the

entire product of the mill from that year to the date of the transfer in 1899.

Previous to 1852 the mill had made miscellaneous fabrics, but went definitely on flannels at that time, and practically made nothing else until 1892, when it commenced making kerseys and fancy dress goods, together with a limited quantity of fancy woolens.

The transfer to the American Woolen Company was made on May 26, 1899, when the mill was taken off of fancy goods as rapidly as possible, and is now confined strictly to kerseys in light colors.

The plant now covers eleven sets of cards and sixty looms, one set of cards and twenty-four looms having been abandoned to make room for fancy goods.

RAY MILLS

FRANKLIN, MASS.

RAY MILLS

FRANKLIN, MASS.

RAY MILLS

FRANKLIN, MASS.

The Ray Mills, situated at Franklin, Mass., were built in 1876 by Messrs. J. F. & L. P. Ray, and were operated by them until 1886, producing fancy cassimeres of a fine grade. In that year the Ray Woolen Company acquired the plant, and under the management of the late Joseph G. Ray, began a period of great prosperity. Mr. Ray produced a line of Union cassimeres which were sold by Otheman, Dyer & Southwick, acquiring a reputation in the market under the name of "Brunswicks." This line of goods had a prominent place in the production of the mill during Mr. Ray's management. Just previous to the sale to the American Woolen Company, several additions and improvements were made to the property. A new dye-house was erected of the most modern style. A new boiler-house was also added, which has four new Kendall boilers, in addition to a carding and spinning department, which was built to accommodate two pairs of mules, and a set of 60-inch by 48-inch cards.

Since the purchase of the plant by the American Woolen Company a new Harris engine of 250 horse-power has been added, and the fire protection has been increased by a system of outside hydrants and a 750-gallon Underwriter pump.

The main mill is 238 feet long and 50 feet wide. It consists of two stories and a basement. The dye-house is 80 feet long and 50 feet wide. The equipment of machinery comprises eight sets of woolen cards, 2,832 woolen spindles, and 56 looms. The

plant produces about 7,500 yards per week of light-weights and 6,000 yards per week of heavy-weight goods.

It is situated on the border of the Midland Division of the New York, New Haven, and Hartford Railroad, and with the Milford branch passing through the property, the freight facilities are all that could be desired. Attached to the plant are twelve tenement houses for the use of the operatives.

WEYBOSSET MILLS

PROVIDENCE, R. I.

WEYBOSSET MILLS

PROVIDENCE, R. I.

WEYBOSSET MILLS

PROVIDENCE, R. I.

The nucleus or parent building of these mills was built of stone by John Waterman in 1836 for manufacturing cotton. R. and J. Peckham became the owners, but during the Civil War the establishment was idle. Royal C. Taft and William B. Weeden were engaged in manufacturing fancy cassimeres at Waterford, R. I., in the No. 3, or first mill built by W. & D. D. Farnum. They purchased the estate in 1864 from Messrs. Peckham, removed the cotton machinery, and in 1865 commenced making cassimeres. An auxiliary building of brick for assorting, scouring, picking, etc., with a one-storied annex for dyeing was built, and was indicated as the No. 2 Mill.

The Weybosset Mills was incorporated in 1866, with Royal C. Taft, William B. Weeden, and James W. Taft as stockholders. In 1872 both No. 1 and No. 2 mills were extended and improved.

In the seventies, though the men's-wear market was influenced much by foreign styles and designs, it was not so completely dominated as at present. Original designs found favor, especially among clothiers, and the "Weybossets" became well known in these respects. Imitations were audacious and frequent, causing the corporation to suffer through the robbery of designs created by itself and established through its reputation. Protection under the laws of letters patent was sought, and for several years all original designs were issued under the seal of the Patent Office. Infringers were at first prosecuted and enjoined until the annoyance ceased.

In 1880 No. 3 Mill was built for auxiliary carding and spin-

ning. Worsted had been constantly encroaching on the old cassimere and other solid, felted fabrics. The clothing trade at last turned from a carded thread and embraced the combed filament in every variety of lustrous fabric. In 1883–84 a portion of the machinery was removed from No. 3 Mill, and combing, drawing, and spinning were installed. Since that time worsteds and cassimeres have been made in the better grades used by clothiers.

In 1885 Royal C. Taft sold his shares in the corporation to the partners in the house of Jacob Wendell & Co., New York.

In May, 1899, the establishment was sold to the American Woolen Company and the corporation merged its individuality into the larger concern.

An interesting story of the fibers of wool and its geographical expression, as rendered in breeds, might be woven out of the experience of these mills in about a generation, as human life goes.

At first only Ohio or Pennsylvania wools were used, with a little from Michigan and Wisconsin. In the depression caused by the Franco-German war Australians were brought in quantity from England or the land of their growth. Under the liberal tariff prevailing in the early seventies pelts were imported largely from Buenos Ayres, and a pullery was operated on the premises.

California then afforded a substitute for the growths of Ohio, and as the territories west of the Missouri became quiet communities they afforded pasturage for the descendants of the central western sheep.

All these changes reveal the processes of civilization in embryo. The great civilizing instrument of Lister and Noble — the automatic comb — was taking the better staple from its elder brother, the carding machine. Wools of shorter and inferior staple were left in the grip of the card, while the better fibers were being seized and engrossed by the constantly encroaching comb.

After the American Woolen Company took possession of this plant important changes were made for increasing and improving the product.

The worsted carding machines were removed entirely and probably the combs will be replaced by other machinery. Twenty-five looms were condemned and replaced by a modern pattern. In addition, forty looms were added. The pattern-weaving department was renovated and a large cloth drier was installed.

The product consists of worsteds and cassimeres, including overcoatings and cloakings; generally the fabrics are in fancy colors, though piece-dyed goods are made. It ranges from 1,100,000 to 1,500,000 yards per annum, according to weights and quality.

The establishment now comprises the following buildings and equipment: No. 1 Mill, of stone, comprises the main building, of four stories, 227 by 50 feet; two wings, of four stories each, 157 by 51 feet and 107 by 49 feet, respectively, and a shed, one story in height, 107 by 88 feet.

No. 2 Mill, of brick, includes a so-called preparation building, three stories in height, 112 by 47 feet; a dye-house of one story, 103 by 22 feet, and an engine and boiler-house of brick.

No. 3 Mill is made of stone, is four stories in height, and is 168 by 59 feet. There is attached to this mill also an engine and boiler-house of brick. The mill office is of brick, one story, 32 by 18 feet, with an extension 28 by 25 feet.

The main equipment includes the following machinery; eight combs with two sets of worsted drawing, 16 spinning frames, 10 twisters, three reels, three winders, 8 mules, and scouring, dyeing, drying machines and extractors; 25 sets carding machines, 17 mules, three winders, three twisters, and 31 spoolers; 218 looms (6–4), 11 dressing frames, two winders, and all necessary finishing machinery.

BALTIC MILLS

ENFIELD, N. H.

BALTIC MILLS

ENFIELD, N. H.

BALTIC MILLS

ENFIELD, N. H.

The Baltic Mills, at Enfield, N. H., were established in 1886 by Benjamin Greenback of Danville, Vt., who conducted the business until 1893, when it was sold to the George Whitney Woolen Company of South Royalston, Mass. In 1898 the mill was sold to the Baltic Mills Company, a stock company of Enfield people, and May 15, 1899, to the American Woolen Company.

On December 9, 1899, one-half of the main mill was destroyed by fire, at a loss of $100,000. This part has been rebuilt and the entire mill refitted, so that while the old mill had but forty-seven looms and five sets of cards in operation, the new mill will have seventy-two looms, or nearly double the capacity. The mills are large and commodious, amply lighted by hundreds of large windows by day, while at night electricity is used throughout both mills. This company, in addition to lighting its mills, furnishes light for the streets of the town and for use in dwellings and stores, from its 600-light alternating dynamos.

The mills are designed to run by water-power, but an efficient steam plant has been added, so that they are not wholly dependent upon the river. The mills are equipped with automatic sprinklers for fire protection, and a 40,000-gallon tank has been erected on a near-by hill to give the required pressure.

This new mill is one story higher than the old mill, and will employ about three hundred hands. The product comprises principally men's overcoating stock, and friezes, chinchillas, and cheviots are the leading goods. These mills form one of the chief industries of the town of Enfield.

ENFIELD MILL

ENFIELD, N. H.

ENFIELD MILL

ENFIELD, N. H.

ENFIELD MILL

ENFIELD, N. H.

The Enfield Mill was erected in 1896 by the Enfield Woolen Company, of which Mr. George E. Whitney was president and Mr. Wyman Pattee treasurer.

The building is of wood with Southern pine frame, three stories high and of the regular mill construction, having a floor space of nearly 20,000 square feet. It is thoroughly equipped with sprinklers and lighted throughout with electricity.

The power is furnished by one water-wheel with an engine of 75 horse-power. This plant is run entirely on the manufacture of woolen yarn for the Baltic Mill. It is equipped with five sets of cards and seven mules, together with a complete outfit of spooling and copping machines, and is operated continuously, day and night, to supply the looms at the Baltic Mill, which is about one-fourth of a mile farther up the Mascoma River.

MOOSUP MILLS

MOOSUP, CONN.

MOOSUP MILLS (Woolen Mills)

MOOSUP, CONN.

MOOSUP MILLS

MOOSUP, CONN.

In 1810 a party of Rhode Island capitalists, among whom was William Almy, attended the Blodgett estate sale at Moosup, Conn., for the purpose of locating a suitable site for a manufacturing plant, but not until 1816 were any definite steps taken. After three years of developing and improving the necessary facilities, a six-set mill was started for the manufacture of broadcloth, under Mr. Almy's supervision.

At the death of William Almy, in 1840, his nephew, Sampson Almy, became heir and assumed the management of the mill. In 1853 many improvements were made for the manufacture of both woolen and cotton cloth. After several years' management of both mills, Sampson Almy leased the woolen department to William Russell, under whose management further improvements were made in the machinery, including the establishment of a plant for dyeing woolen yarns. At the death of William Russell, in 1856, Mr. Vagurburn continued to run the mill.

In 1859 Mr. Almy again leased the woolen department, this time to Mr. Dellebar, who manufactured cassimeres and army cloth. Mr. Dellebar was succeeded in 1864 by the Connecticut Woolen Company, but owing to some misunderstanding the lease was revoked. After remaining idle some years the lease was secured by Sanderson & Crow, who manufactured fancy cassimeres, but were obliged to discontinue in 1873, owing to the business depression of that year. Operations were, however, resumed the following year under the management of A. Whipple; but in June, 1875, the

entire woolen mill and a part of the cotton mill were destroyed by fire.

Not until the death of Sampson Almy were any steps taken to sell or rebuild the property. In 1879 David Aldrich and Edwin Milner, of the firm of Aldrich & Milner, woolen manufacturers of Plainville, R. I., bought the entire estate and at once built a mill on the old site for the manufacture of fancy cassimeres. At the death of Mr. Aldrich, in 1889, the firm was changed to Milner & Co.

In 1891 the Glens Falls Worsted Mills were built by Mr. Milner for the purpose of supplying yarn for the woolen mill.

In May, 1899, both the woolen and worsted mills became connected with the American Woolen Company, and are known as the Moosup Mills.

Both mills are substantial stone structures, deriving their power from the Moosup River, having a fall at both plants of seventeen feet, in addition to which each mill is provided with an engine capable of running the entire plant. The woolen or cloth mill has eighty-five broad looms and accessory machinery for the manufacture of woolen and worsted cloths.

The worsted or yarn mill has three sets of drawing and 5,448 spindles, with accessory machinery for the manufacture of fine worsted yarn, which is in part consumed by the cloth mill.

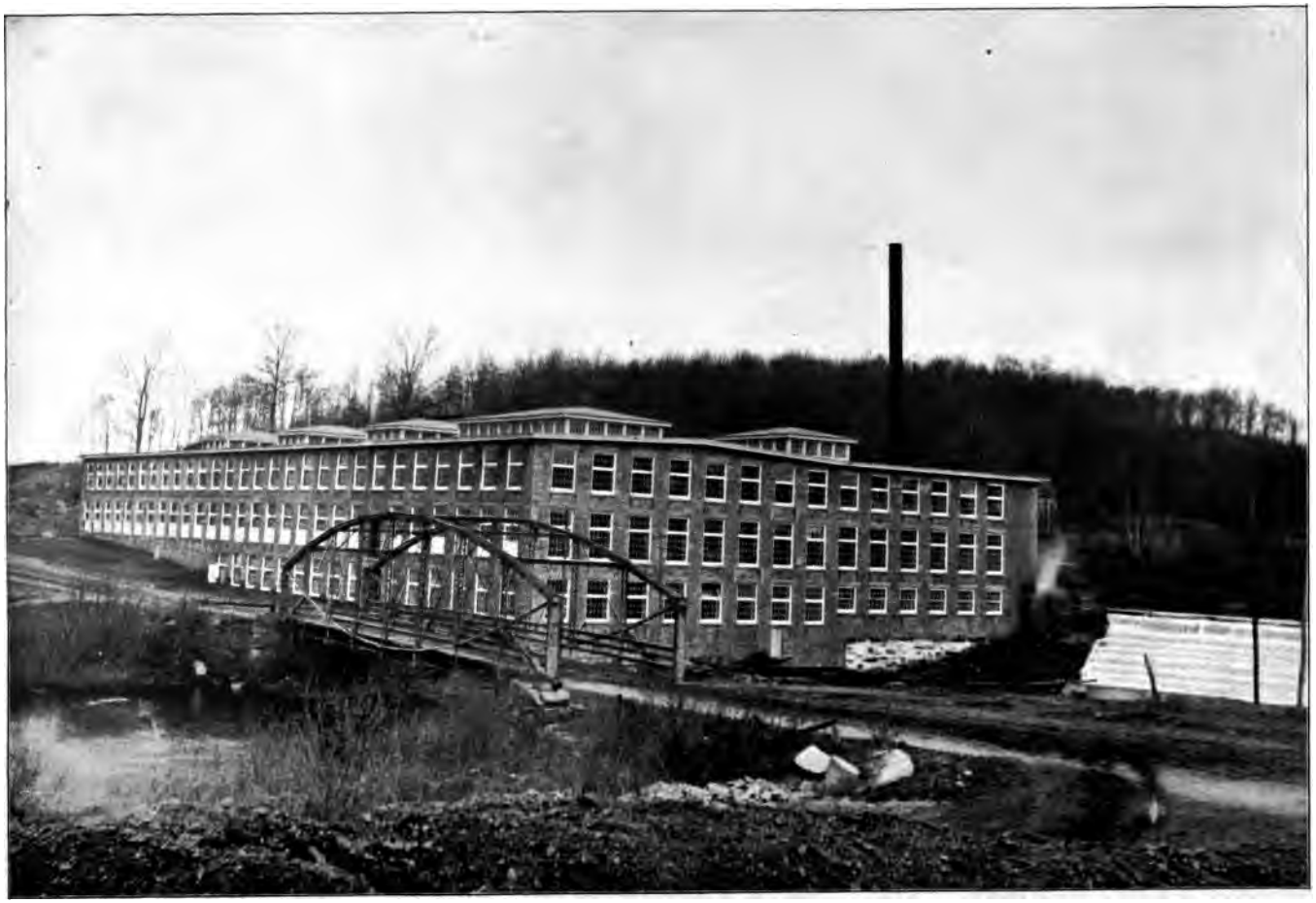
The mills have ample storehouse accommodations and neat and comfortable cottages for the employes, while the Providence and Willimantic branch of the New York, New Haven, and Hartford Railroad near by provides excellent freight facilities.

The plant at Moosup, known as the cloth mill, includes two manufacturing buildings, with additions and storehouses as follows:

Mill No. 1, of stone, is 164 by 52 feet, with three stories, having

MOOSUP MILLS

GLENS FALLS, CONN.



MOOSUP MILLS (Worsted Mill)

GLENS FALLS, CONN.

a weave-shed adjoining, 95 by 75 feet. These buildings contain eight sets of cards, spinning, winding, twisting, spooling, dressing and finishing machinery, and eighty-five broad looms, producing 8,000 yards per week of fancy worsteds. Adjoining this mill on the west side is a dye-house and picker-room, 157 by 30 feet.

Mill No. 2, also of stone, on the south side, is 197 by 36 feet and has five stories, with attic and basement. This mill contains four sets of cards, spinning, winding, spooling, twisting, dressing, washing, fulling, drying, and gigging machinery, machine-shop, boilers, engine for electric lighting purposes, and one Harris-Corliss engine for supplying power in case of low water. A blacksmith-shop and a soap-house are situated on the south side of No. 2 Mill, 32 by 24 feet, one story in height.

On the north side of No. 1 Mill is situated a stone stock-house, 72 by 52 feet, two and a half stories; also a wooden stock-house, 70 by 20 feet, one and a half stories. Adjoining this is a small storeroom for cloth cases, 20 by 12 feet, and a bleach house, 16 by 13 feet.

On the east side of the river, close to the river bank, stands a frame lumber storehouse, 40 by 34 feet, two and a half stories.

Opposite Mill No. 1 is a neat office 34½ by 20½ feet, one and one-half stories, with hose house annexed.

The yarn mill at Glens Falls, of stone, is 254 by 73 feet, with an "L" 64 feet long. It is two and a half stories in height, with a monitor roof and contains three sets of drawing, 5,448 spinning spindles, 3,024 twisting spindles, equipped for fine numbers. The weekly production is about 12,000 pounds.

The wood stock-house is 112 by 27 feet, and is used for the storage of raw stock.

The brick stock-house is 72 by 42 feet, two stories, and is

used for the storage of tops and yarn. It is a substantial brick building.

The Garnet Mill is 80 by 38 feet, with two stories and basement, and is used as a waste-house for both yarn and cloth mill. It has its own water-wheel and engine, and contains two garnet machines.

LEBANON (RIVERSIDE WOOLEN) MILLS

LEBANON, N. H.

LEBANON (RIVERSIDE WOOLEN) MILLS

LEBANON, N. H.

LEBANON (RIVERSIDE WOOLEN) MILLS

LEBANON, N. H.

This mill was erected in 1893 on the site originally occupied by Messrs. Mead, Mason & Co. The company was organized to operate the plant, with Mr. F. B. Kendrick as president, Mr. George S. Rogers as vice-president, and Charles E. Rogers as treasurer. At the second annual meeting Mr. George S. Rogers was elected both vice-president and treasurer, and held these offices until the property was purchased by the American Woolen Company in July, 1899.

The original production of the plant was beavers and wool and cotton warp kerseys. Messrs. Sawyer, Blake & Co. and Stevens, Sanford & Handy were the New York selling agents.

The mill is four stories high, including basement, and is built entirely of brick. It is lighted throughout by electricity, is completely equipped with a sprinkler system, and has a floor space of 37,878 square feet. Across the way and connected with the main mill by overhead passageways is a three-story brick structure, containing the burling and yarn departments, this building having a floor space of 14,338 square feet. Here also is the boiler-room, with two 125 horse-power boilers. Power is furnished by two 75 horse-power water-wheels, supplemented by a 125 horse-power engine.

The equipment of the mill comprises five sets of 48-inch cards, forty-six looms, six spinning mules, and all finishing machinery.

LEBANON (MASCOMA) MILLS

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